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Chapter I

Elementary Rope Work

THIS CHAPTER BEGINS with elementary rope work in its simplest form. Starting with Clinches and Hitches, the types of knot work are developed gradually step by step, finally embracing the more intricate forms of knotting as the chapter advances. Bends, Bowlines and Sheep-Shanks are dealt with at length in all their various combinations with an adequate description of how they are tied, their different uses, and are exemplified by beautiful illustrations. Seizings and Whippings are also illustrated and explained

in an easily understandable manner.

The beginner should master well all the details of construction and thoroughly understand the formation of the examples contained in this chapter before attempting the more intricate knot designs in subsequent chapters. This is imperative because practically all simple knots start from a clinch, hitch, loop or bight. The elementary simple knots are then combined and expanded to form the complex varieties and the ornamental knots which are described fully in the following chapters.

Plate 1—Clinches and Hitches

FIG. 1: The *Simple Clinch* is a Running Eye with a strong cross-seizing to make the moving part fast to the standing part. It is sometimes used to prevent a rope from running out through a block, and also to make the Running Clinches described below. This clinch has one seizing. A cross-seizing is shown in PLATE 19, FIG. 291.

FIG. 2: This *Simple Clinch* is made with two seizings and is more secure than FIG. 1, although its use is the same.

FIG. 3: The *Outside Clinch* is a Running Knot formed by reeving the standing part of the rope through the eye of a Simple Clinch (see FIG. 1 or 2).

FIG. 4: The *Inside Clinch* is similar to the preceding, except that it is somewhat more secure. When hauled taut around a spar or other object, it jams on itself. On the other hand, it is somewhat more difficult to release than the Outside Clinch. It is a good knot to use where a turn is to be taken about an object and after being drawn taut must be slipped quickly. These

clinches, FIGS. 3 and 4, have a single cross-seizing.

FIG. 5: The *Double Clinch* may be used for a temporary eye when there is not sufficient end to tie a Bowline. Make a stout cross-seizing, then cross the moving part under the standing part, and make a second cross-seizing.

FIG. 6: This *Inside Clinch* is made with a double-seizing. It is more secure than FIG. 3 or 4, and is used for the same purpose.

FIG. 7. The *Overhand* or *Thumb Knot* is known to almost everyone, and has a wide utility. It has one chief function: to serve as a base or part of other knots. It is sometimes used as a Stopper Knot to prevent a rope from running out of a block or other hole, but should not be favored for this purpose, due to the fact that when it jams it is difficult to untie. Furthermore, it should not be used in preference to the accepted whipping or pointing to prevent unraveling or fraying in the end of a rope. Overhand Knots often tie themselves spon-

taneously in loose pieces of cordage. And in this connection it is well to remember that a rope with an Overhand Knot in it possesses less than half the breaking-strength of an unknotted rope.

FIG. 8: The *Figure-of-Eight Knot* has been called the perfect knot, because of its symmetry rather than its utility. It is used, as in the case of FIG. 7, as a Stopper Knot, and serves this purpose well, since it does not jam as hard as the Overhand Knot and by comparison opens quite easily. As a practical knot its uses are limited, but as an ornamental knot few can surpass it for beauty and simplicity of design.

FIG. 9: The *Openhand Eye Knot* or *Binder's Loop* is a landsman's method of making a loop in the end of a line. It can be used in tying up packages, but should not be preferred to a Clinch or Splice, as it jams very hard and consequently proves difficult to untie.

FIG. 10: The *Granny* or *Lubber's Knot* is often made when attempting to tie the Square Knot (FIG. 11), but should never be used, due to the fact that it either slips or jams. The beginner should learn the difference between the Granny and Square Knot before proceeding further in the art of knotting. When tension comes on only one of the standing parts of the Granny Knot, it upsets and jams. In this position it is unsafe and difficult to release.

FIG. 11: The *Square* or *Reef Knot* is the most ancient and generally most useful method of joining two pieces of cordage. It is usually employed to tie up bundles or other objects, or to tie the reef points in a sail. However, it has two serious disadvantages: it does not hold if the ropes are of two different sizes or materials, and it jams very hard under great tension. Therefore, it should never be used to join two hawsers. To make the Square Knot, tie one Overhand Knot, as in FIG. 7, upon another (FIG. 11). Tie the second Overhand Knot in the opposite way from the first; in other

words, be sure that both the standing part and the end of each rope reeve together through the bight of the other rope. Otherwise, you will finish with a Granny Knot.

FIG. 12: The *Single Half Hitch* is the basic element in the formation of many important knots. It is seldom used alone, except as in PLATE 2, FIG. 46, when the end is seized to the standing part.

FIG. 13: *Two Half Hitches* is a widely used and excellent way to secure a rope to a ring spar or other object.

FIG. 14: The *Round Turn and Two Half Hitches* is similar to FIG. 13, except that an additional turn is taken around the object. It is superior to FIG. 13, for when pulled taut it will grip the object much firmer and hold its position. Care should be taken that the Half Hitches are made the same way; otherwise a Sailor's Hitch will result, as in PLATE 2, FIG. 47. However, both forms are equally secure.

FIG. 15: The *Lark's Head* or *Cow Hitch* is serviceable when tension is applied on both standing parts, but is valueless when a strain comes on one part only. It is familiar on baggage tags, or wherever a parcel is to be bound with the bight of a line.

FIG. 16: The *Round Turn Lark's Head* is similar to FIG. 15, except that a round turn is taken with the bight around each standing part, thus jamming the knot and holding it more securely. It is used for the same purpose as the ordinary Lark's Head.

FIG. 17: The *Clove Hitch* or *Ratline Hitch*, which has a number of uses, is frequently employed to secure a line to a stanchion or spar, or to fasten the ratlines to the shrouds; hence its name. This very useful knot is not only easily tied, but is quite secure when made on a spar.

FIG. 18: The *Fisherman's Bend* or *Anchor Bend* is a remarkable knot because of its simplicity and great strength. It will not slip, chafe, or jam; much tension can be

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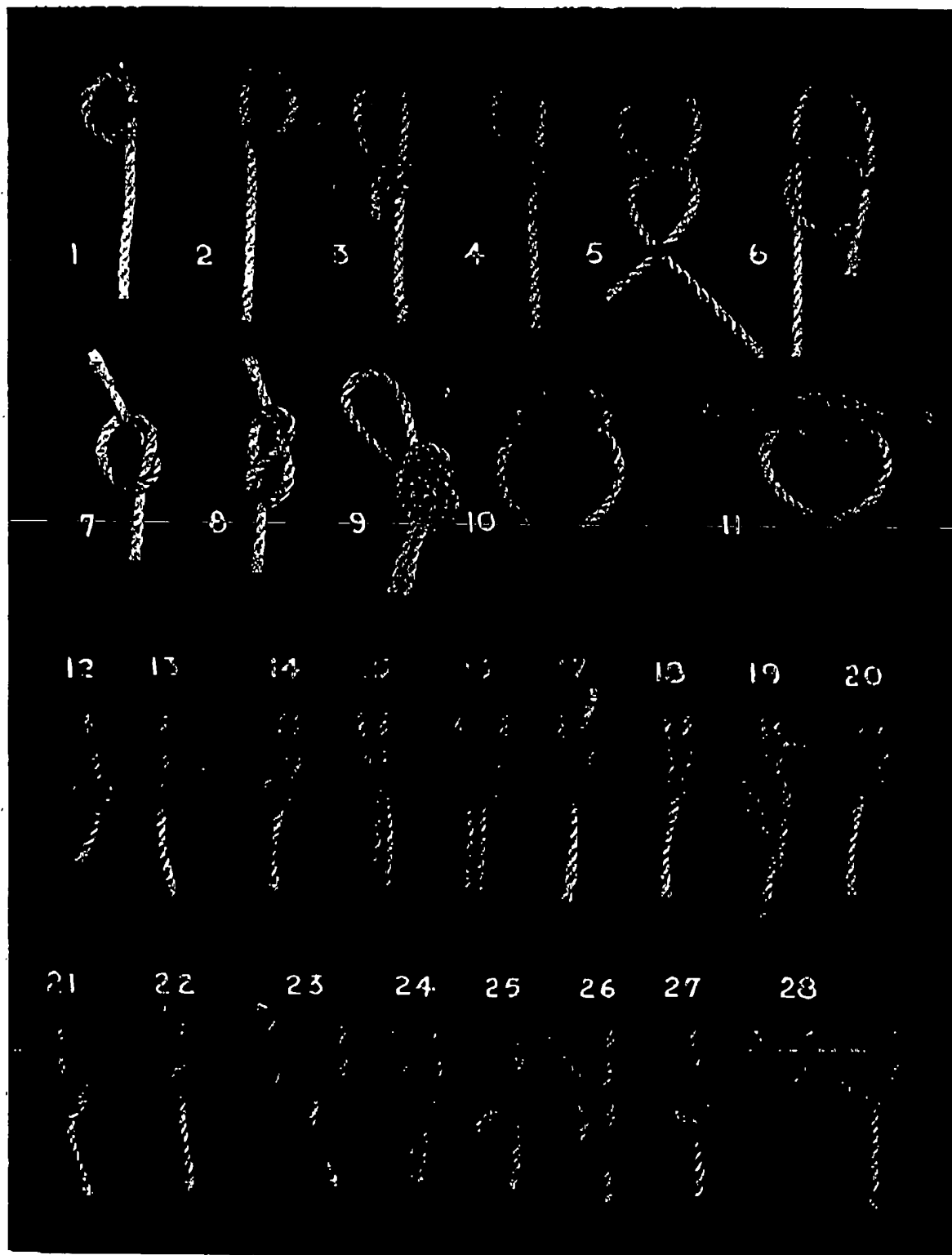


PLATE 1—CLINCHES AND HITCHES

applied to it, and when the strain is released, it is very easily untied.

FIG. 19: The *Fisherman's Bend and Half Hitch Seized*, First Method, is made in the same way as FIG. 18, except that a Half Hitch has been taken around the standing part and the end seized to it. If the tension is not continuous, it is best to do this, since the knot is liable to shake itself free if the end is not secured. Another method is shown in Chapter XI.

FIG. 20: The *Studding-Sail Boom Hitch* or *Stun-Sail Halyard Bend* is made the same as the Fisherman's Bend, but with the end brought back over the first turn, and under the second. This knot was used on the studding-sail booms of sailing vessels.

FIG. 21: The *Buntline Hitch* or *Studding-Sail Tack Bend* is made with an Inside Clove Hitch around the standing part. This hitch will jam and never slacken. It is used to make fast the tack of the studding-sail.

FIG. 22: The *Timber Hitch* is useful in securing a rope temporarily and quickly to a spar or piece of timber. It does not hold well unless it is kept taut. The twist should be in the same direction as the lay of the rope, which may be easily remembered by always thinking of it as "dogged" with the lay.

FIG. 23: The *Log Hitch* is similar to the Timber Hitch, except that it has a Half Hitch added to it. In actual use the Half Hitch is of course placed further away from the Timber Hitch than shown in the illustration. The addition of the Half Hitch tends to keep the log pointed in the right direction when being towed.

FIG. 24: The *Round Turn and a Cow Hitch* is made the same as FIG. 16, except that the standing parts are given a round

turn on the spar before being inserted in the two loops in the bight.

FIG. 25: The *Halter Hitch* is formed by putting the end about the spar or object to which it is to be fastened, and then tying an Overhand Knot around the standing part. It is used to tie up horses.

FIG. 26: The *Slip Halter Hitch* is made in the same way as FIG. 25, but with the end tucked back through the body of the knot. This hitch can be easily untied by simply pulling the end.

FIG. 27: The *Inside Clinch Hitch* is tied by taking a turn around the spar and then putting a round turn around the standing part, so that the end is inside the knot. It is unsafe to use this knot unless the end is seized to the standing part. It has very little practical value.

FIG. 28: The *Stopper Hitch* is formed by making a Half Hitch with the end of the line around the spar, rope, chain, or whatever it is to be used on. Then the end is backed around the object in the opposite direction from which the strain is to be applied. In use, the part hanging down should lead to the right, almost parallel to the object upon which it is fastened, and be made fast to a stationary object. After the turns have been dogged around the rope or spar, the end is held in the hand. The authors have found that in actual practice these backing turns should always be taken with the lay of the rope (if it is put on a rope), as it tends to hold better due to the added cross-friction. The Stopper Hitch shown in PLATE 4, FIG. 92, is superior to this one, because the added turn gives it greater holding power, and if a heavy weight is to be suspended, it is much safer to use the stopper with more than one turn.

Plate 2—Hitches

FIG. 29: The *Inside Rolling Hitch* is tied as follows: with the end of a line, make a turn around the spar; then overlap the

standing part and take another turn, overlapping the standing part again inside the first turn; continue around the spar again,

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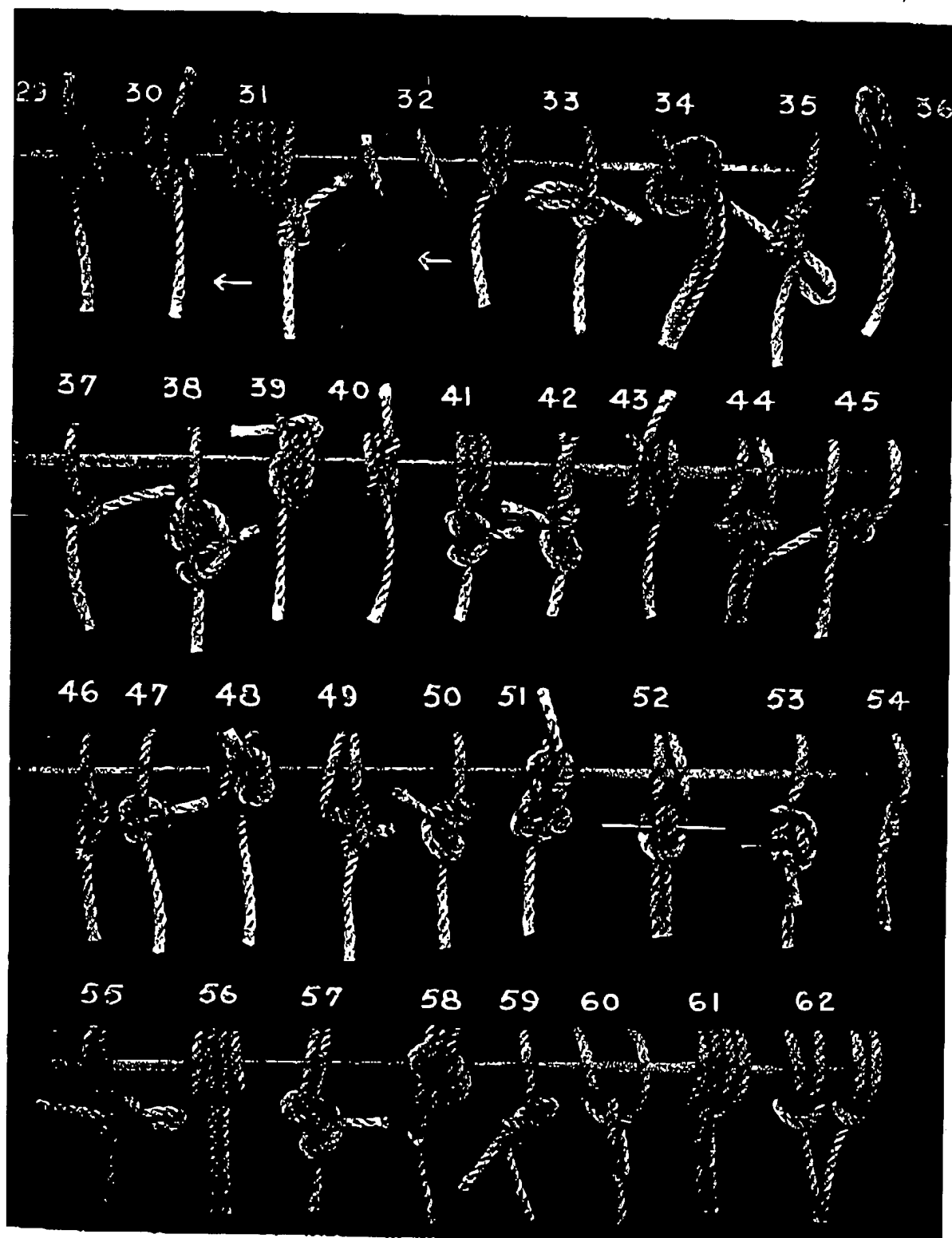


PLATE 2—HITCHES

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and bring the end up under the second turn. This is a very valuable knot ashore or afloat, because it can be tied around a smooth surface without slipping. It can also be untied very easily. Another important feature about this knot is that it may be applied at a right angle to the spar or parallel with it.

FIG. 30: The *Outside Rolling Hitch* is made almost the same as FIG. 29, except that instead of overlapping the standing part with the first two turns, only one is overlapped, and a round turn is made the second and third times around, with the end brought up under two instead of one turn. It may be used for the same purpose as the *Inside Rolling Hitch*, but the latter is to be preferred.

FIG. 31: The *Lifting or Well Pipe Hitch* will also bear a strain parallel to the object to which it is fastened. It is used to secure the guy ropes of a circus tent to stakes driven into the ground; or, as the name indicates, to hold a well pipe being lowered into the earth. It is formed by first taking a number of round turns about the object, as many as desired (the more the better). Then when enough have been put on, the end is brought across the top of the turns, and two *Half Hitches* are made around the standing part. Tension is applied to the knot in the direction shown by the arrow.

FIG. 32: The *Round Turn Running Stopper Hitch*, although used for the same purpose, is inferior to the *Stopper Hitch* illustrated in PLATE 4, FIG. 92. One bad feature is that the "dogged" part reeves against the lay when made as on a hawser (see explanation, PLATE 1, FIG. 28). It is tied by overlapping the two round turns over the standing part, and then "dogging" the end. Tension is applied to the knot in the direction indicated by the arrow.

FIG. 33: The *Slip Hitch* is tied by first passing the end of the line a full turn around the spar. Then a full turn is taken around the standing part, and the bight of

the end is tucked under the turn on the spar. This knot may be used as a fastening where it is necessary to untie the end quickly; but it is not very safe.

FIG. 34: The *Lark's Head and Half Hitch* or *Check Knot* is a more secure method of tying the *Lark's Head Knot* (see PLATE 1, FIG. 15). The rope is weakened considerably by the addition of the *Half Hitch*, and is quite difficult to untie once a strain has been put on it.

FIG. 35: The *Halter and Manger Hitch* is formed as follows: a full turn is taken about the spar; then a twist is put in the moving part to form a loop and placed on top of the standing part; the end is next brought around the back of the standing part, and the bight is placed through the loop formed by the twist. This knot has little value, and is not very safe to use.

FIG. 36: The *Slip Clove Hitch* is a variation of the ordinary *Clove Hitch* (see PLATE 1, FIG. 17). It is made the same way except that on the last tuck the bight, rather than the end, is placed under the turn. This is a handy knot, as it can be slipped and untied quickly.

FIG. 37: The *Teamster's Hitch* is a very useful and secure knot, and is made in the same fashion as a *Single Carrick Bend* (see PLATE 6, FIG. 136).

FIG. 38: The *Snubbing Hitch* is made by first taking a full turn around the spar, and bringing the end down to the standing part. Next, make a bight, and hold it with your finger. Wind the end around the bight and the standing part, until four or five turns have been made. Then the end is put through the space between the spar and the knot. It is now brought down, and a *Half Hitch* taken around the standing part below the turns.

FIG. 39: The *Top Sail Halyard Bend*, First Method, is made exactly like the *Strudding-Sail Boom Hitch* (see PLATE 1, FIG. 20), except that another turn is taken

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[Plate 2]

Elementary Rope Work

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around the spar. The Yachtsman's method of tying this knot will be shown in Chapter XI.

FIG. 40: The *Magnus Hitch*, First Method, resembles the Inside Rolling Hitch, but differs in that it has one overlapping turn which goes from the left side completely across the knot to the right side. It is made by first making a round turn on the spar, then crossing over the two top turns and going completely around the spar again. The end is disposed of by putting it under the outside turn. Another commonly known method of tying this hitch will be shown in Chapter XI on Miscellaneous Knotting.

FIG. 41: The *Rolling Hitch and Two Half Hitches* is made by taking the end of the rope and passing it around the spar three full turns, then taking two Half Hitches around the standing part with the end. This is a very serviceable knot, and should be mastered by anyone working cordage. It is uniform, and when drawn taut will not slip or give, and if put on a varnished surface will not mar it as much as the two Half Hitches (PLATE 1, FIG. 13).

FIG. 42: The *Turning Hitch* is made by first taking a full turn around the spar. Then an Overhand Knot is made with the end and the standing part. To finish, the end is again passed around the spar, and two Half Hitches are made around the standing part with the end.

FIG. 43: The *Chain Knot Fastening* is tied as follows: the end is passed around the spar, then crossed over the standing part, and a Clove Hitch made on the left-hand side of the first Hitch. This knot can be used for the same purpose as a Rolling Hitch.

FIG. 44: This *Cat's Paw Hitch* has been made on a spar instead of a hook as illustrated in PLATE 256, FIG. 156. When a strain is to be put on one end only (although both ends may be used), a Cat's Paw can be made in the center of a line and put

over the end of a spar. It will not slip, and in general is a useful knot.

FIG. 45: The *Bow Hitch* is begun by laying down a piece of line, with one end running to your left and one to your right. The end is taken, and an ordinary loop made, which is flattened down. Another loop is now formed with the standing part and is then wound around the center four or five times. There will then be a loop on each side of the center, and these are grasped and placed over the spar.

FIG. 46: The *Seized Half Hitch* is made more for temporary than permanent use, although it will stand up under considerable strain. It can be used for the same purpose as PLATE 1, FIG. 13.

FIG. 47: The *Inside Sailor's Hitch* is tied in the same manner as PLATE 1, FIG. 15, except that the Lark's Head Knot is made around the standing part instead of the spar. This knot is not used much, but is just as sturdy as the knot in PLATE 1, FIG. 13.

FIG. 48: The *Gunner's Combination Knot* is a Clove Hitch with an Overhand Knot made by using the end and the standing part. This knot has very little use, aside from being a more secure form of Clove Hitch.

FIG. 49: The *Backhand Hitch* is tied by putting a bight around the spar (just as in making a Lark's Head Knot, but without the ends rove through). The standing part is left hanging down; the moving part is put through the bight; and two Half Hitches are placed around the standing part. There is little use for this knot.

FIG. 50: The *Midshipman's Bend* is made somewhat the same as an Inside Clinch Hitch (see PLATE 1, FIG. 27), except that a Half Hitch is added below the knot on the standing part. It may be used in place of two Half Hitches, as it is very secure.

FIG. 51: The *Dogged Hitch* is begun by

taking a bight and laying it on the spar. The end is next brought around the back of the spar, put through the bight, and run around on one side against the lay for two turns. It is then taken across the front of the standing part, and "dogged" up around and with the lay.

FIG. 52: The *Lark's Head with Toggle* can be instantly released by withdrawing the toggle. It is unnecessary to have access to the ends of the rope in order to form this knot. It is effective, however, only when there is constant tension on both standing parts, and even then should be used only temporarily.

FIG. 53: The *Boat Knot* is an excellent temporary fastening for the end of a rope, and one that can be cast off in a moment. This knot is formed by making an *Overhand Knot* (see PLATE 1, FIG. 7) in the end of the rope, passing it over the spar (or ring), and bringing the bight of the standing part up through the center of the *Overhand Knot* and inserting the toggle. This knot has one disadvantage: it has a habit of jamming around the toggle at the wrong moment, making it difficult to release. Hence, the *Lark's Head with Toggle* (FIG. 52) is to be preferred.

FIG. 54: The *Seized Loop* is a temporary fastening, made by simply passing the end around the spar and seizing it to the standing part. It is not advisable to use this Loop if something heavy is to be placed on the standing part, as it is liable to carry away.

FIG. 55: The *Slip Fisherman's Bend* is made by precisely the same method as the ordinary *Fisherman's Bend* (see PLATE 1, FIG. 18), except that a *Slip Hitch* has been added. This knot is a bit more secure than the ordinary *Fisherman's Bend*, although used for the same purpose.

FIG. 56: The *Round Turn Lark's Head* is the same as PLATE 1, FIG. 15, with an additional turn taken around the spar with each standing part. When drawn tight, this *Lark's Head* will not slide or give.

FIG. 57: The *Thumb Knot Hitch* is made as follows: a round turn is taken on a spar; the end is passed around the standing part, tucked as in the *Fisherman's Bend* (see PLATE 1, FIG. 18), brought back across the turns, and put in toward the spar through the loop just formed by the end going around the standing part, forming a *Thumb Knot*; the end is then taken down and half-hitched to the standing part. This knot may well be called a variation of the *Fisherman's Bend*, but it will not shake loose.

FIG. 58: The *Lock Hitch* is a useful knot where there is a short standing part, for it is with this end that the *Lock Hitch* is tied. Hold a short end and take the standing part around the spar for three full turns. Next, bring it over across the turns and back under the three turns on the spar, then back over and through the loop on the far side. The end is then seized to the standing part.

FIG. 59: The *Sheet Hitch* is seldom used, and is too difficult to make to be of any practical value.

FIG. 60: The *Clove Hitch Seized* is made in the same fashion as PLATE 1, FIG. 17, except that the end is seized to the standing part. Although it can be used for the same purpose, it is more permanent than the ordinary *Clove Hitch*.

FIG. 61: The *Crossed Lark's Hitch* can be used only when there is equal tension on both standing parts. It is made by holding a bight in front of the spar, facing down. The standing parts are next given a round turn on the spar between the bight. Then one of the ends is run through the bight (the other runs straight down the outside), and both ends are seized.

FIG. 62: The *Treble Lark's Head* may be used for a Hitch, but is mainly employed to cover rings (Coxcombing). To make it, an ordinary *Lark's Head* is tied (see PLATE 1, FIG. 15). Then a *Back Half Hitch* is formed with each end.

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Plate 3—Hitches

FIG. 63: The *Double Lark's Head*, in this case, is made on the standing part, and can be used when a Hitch is to be made on the bight of a line.

FIG. 64: This *Seized Lark's Head* is made with the end of a line. The seizing is put on to give the knot added security. A Lark's Head of this type should always be seized; otherwise it is liable to slip.

FIG. 65: The *Backhanded Hitch* is made by putting a bight around the front of the spar, and bringing the two ends around the back. A turn is taken around the bight and the end, with the standing part. The end is then seized to the standing part to make the knot secure.

FIG. 66: The *Round Turn Seized* is made when there is not enough end left to make two Half Hitches. It is not very secure, and should not be used if there is to be great tension on the hauling part.

FIG. 67: The *Figure-of-Eight Clove Hitch* is made as follows: a Figure-of-Eight Knot is first tied with the end; the two loops are then taken and slipped over the end of the spar, drawn tight, and the end seized to the standing part.

FIG. 68: The *Midshipman's Hitch* is better known to yachtsmen and fishermen as a Topsail Sheet Bend, taking its name from the use to which it is put. It consists of a Half Hitch made with the end around the standing part, plus a Round Turn Inside Half Hitch just below it. It will not shake free when there is not a constant strain on it; hence, its use for securing the end of a topsail sheet to the clew cringle in the sail.

FIG. 69: The *Capstan Knot* is an application of the Figure-of-Eight Knot. It is unreliable, except for very light work or for a temporary fastening.

FIG. 70: The *Two Slip Half Hitches with a Bight* is made when it is desired to slip the knot quickly. To tie it, first take a

bight, and form a Half Hitch around the standing part. Then take the bight again, and make a Slip Half Hitch around the standing part.

FIG. 71: The *Two Half Hitches and a Slip Knot* is tied by first taking the end around the spar, and making two Half Hitches around the standing part. Then a Slip Knot is tied just below the Half Hitches.

FIG. 72: The *Half Hitch and Thumb Knot* is made as follows: tie a Half Hitch, and then right under it make a Thumb Knot around the standing part. This knot is more secure than Two Half Hitches, but is very seldom used.

FIG. 73: The *Roband Hitch* was formerly used to bend the robands (rope bands) of a sail to a yard. The two ends are finished off with a Reef Knot to complete the Hitch.

FIG. 74: The *Strop Lifting Hitch* is made with a strop instead of the end of the rope. A block or other object may be hitched in the loop hanging down. This knot will bear great tension, and if put on a vertical spar will not slip down when a strain is placed on it.

FIG. 75: The *Weaver's Hitch* is really a Bowline, but it is made like a Weaver's Knot or a Sheet Bend. This is a very useful method of hitching a line to a spar or other object, because it will not give, and is easily untied.

FIG. 76: The *Lifting Hitch with a Bowline* serves the same purpose as the Lifting Hitch shown in PLATE 2, FIG. 31. The only difference is that this Lifting Hitch is made with a Bowline, whereas the other is made with two Half Hitches. Each serves its purpose equally well.

FIG. 77: The *Two Half Hitch Stopper Hitch* is used for the same purpose as the Stopper Hitch in PLATE 2, FIG. 32, although made slightly different. Every person who

uses a Stopper Knot has his own pet method of applying it. Some prefer the Rolling Hitch or one of the other various types. Experimentation has shown that, if applied to a rope, two Half Hitches are the most satisfactory, because when a great amount of tension is applied to it, the knot can still be cast free easily. The Stopper Hitch shown in PLATE 4, FIG. 92, usually jams when a heavy weight is placed on it. Tension is applied to the knot in the direction indicated by the arrow.

FIG. 78: The *Killick Hitch* is an adaptation of the Log Hitch, and resembles PLATE 1, FIG. 23, except that the Half Hitch is passed in the opposite direction. It is a good way to secure a large stone or other object when a temporary mooring is needed. Tension is applied to the knot in the direction shown by the arrow.

FIG. 79: The *Reversed Check Knot* is an adaptation of the knot shown in PLATE 2, FIG. 34, except that the Half Hitch is made around the bight instead of around its own part.

FIG. 80: The *Lark's Head with Two Half Hitches* is a method of securing the end of the rope in a Lark's Head when only one end of the line is to be used.

FIG. 81: The *Clove Capstan Hitch* is made as follows: a Clove Hitch is first tied, and the end is taken from the right, brought to the left underneath the standing part, up between the Clove Hitch, and then from the right to the left, over under, and over.

FIG. 82: The *Round Turn and Half Hitch* is a good method of securing the end of a line permanently, and will bear quite a bit of tension. To make it, a round turn is first taken on the spar, and then the end is half-hitched around the standing part and seized.

FIG. 83: The *Inside Cow Hitch* is a variation of PLATE 1, FIG. 16, but the bight is on the inside instead of the outside of the knot.

FIG. 84: The *Lock Studding-Sail Boom Hitch* is made somewhat similar to the knot shown in PLATE 1, FIG. 20, but as can be seen, the end is brought around the standing part in the opposite direction from the ordinary Studding Sail Boom Hitch.

FIG. 85: The *Lock Clove Hitch* is made by beginning in the same way as the ordinary Clove Hitch. As the second part is being made, an additional turn is taken, and the end is then put under the second turn and finished in the same manner as the regular Clove Hitch.

FIG. 86: The *Clove Hitch and Half Hitch* is an adaptation of the Hitch in PLATE 2, FIG. 43, except that in this knot both ends are used instead of only one.

FIG. 87: The *Rolling Thumb Knot Hitch* has very little use, and when a strain is placed on it the Thumb Knot is liable to jam.

FIG. 88: The *Slide Knot* is a Slip Knot, and is made somewhat similar to the Figure-of-Eight Hitch. This knot has little use, and the Figure-of-Eight Hitch is to be preferred.

FIG. 89: The *Back Hitched Clove Hitch* is similar to the ordinary Clove Hitch. A Half Hitch is taken on one of the turns.

FIG. 90: The *Rolling Sailor's Hitch* is made by first taking a turn around the spar. Then a Half Hitch is placed around the standing part; the end is brought back as in the Lark's Head Hitch; and two full turns are taken. The end is then put through the bight on top of the turns to finish the knot.

FIG. 91: The *Riding Turn Hitch* is tied as follows: two full turns are taken around the spar to the left of the standing part; a third turn is taken, bringing the end across the front of the previous turns; the end is again taken and brought from the right to the left; then a Half Hitch is taken on the two left-hand turns, and brought down and seized to the standing part.

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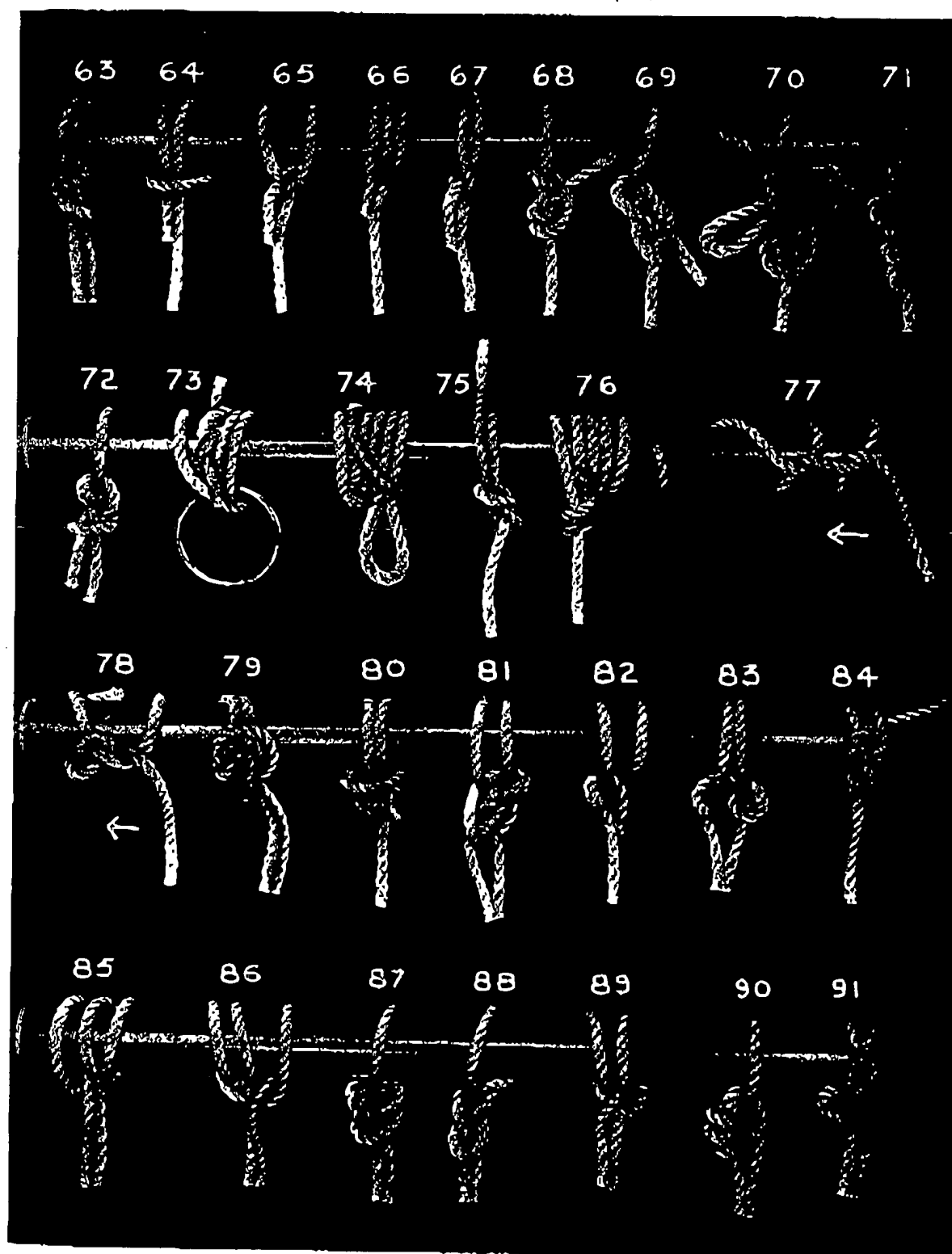


PLATE 3—HITCHES .

Plate 4—Hitches

FIG. 92: The *Regular Stopper Hitch* is the most widely used of all Stoppers. This Hitch will hold even when the rope is wet or greasy, because the heavier the load the tighter the knot becomes. In this case, as in all Stoppers, the end made fast to the bitts or other object is marked *b*, and the end held in the hand is marked *a*. End *a* was left short in the illustration for obvious reasons, but in reality it is a little longer. First, take a turn around the rope, forming a Half Hitch. Next, take another turn around the rope and inside the original Half Hitch. The end should then be at point *c*, from where it is taken back and dogged with the lay. Notice the difference between this Hitch and the Hitch shown, in PLATE 2, FIG. 32. Tension is applied to the knot in the direction shown by the arrow.

FIG. 93: The *Lark's Head with Interlocking Half Hitches* is another secure method of tying the Lark's Head Knot. However, it has one bad feature: when forced to carry a heavy load, it will jam very hard, and becomes difficult to untie.

FIG. 94: The *Round Turn Lark's Head Hitch* is a Lark's Head with a round turn made around the bight with each end.

FIG. 95: The *False Figure-of-Eight Hitch* has a knot on the bottom which appears to be a Figure-of-Eight. Close observation will show that it is not locked.

FIG. 96: The *Round Turn Clove Hitch* is an ordinary Clove Hitch, except that a round turn is taken with each end. This gives the knot added security.

FIG. 97: The *False Thumb Knot Hitch* apparently has a Thumb Knot in it. But when this Hitch is tied, it will be found to be an entirely different knot.

FIG. 98: The *Crossed Lifting Hitch* may be used for the same purpose as the Lifting Hitch in PLATE 3, FIG. 74, and also

serves as a very good method to use in passing a strop around a stanchion to hook a block in. This Hitch can be put on a vertical spar or other object, and will not slip. Tension is applied to the knot in the direction shown by the arrow.

FIG. 99: The *Outside Magnus Hitch* is similar to the Hitch shown in PLATE 2, FIG. 40. However, the hauling part is on the outside, not in the center. Both of these Hitches will hold equally well.

FIG. 100: The *Log Clove Hitch* is made by first tying a Clove Hitch, and then with both ends, forming a Half Hitch around the spar on the left-hand side of the Clove Hitch.

FIG. 101: The *Blood Hitch* is made as follows: four complete turns are taken around the spar; the end is put under the turns to the right, around the standing part, back under the turns, then brought down and half-hitched to the standing part, and the end seized.

FIG. 102: The *Crossed Lark's Hitch, First Method*, is tied by first making a bight and putting it in front of the spar. One end is taken and a full turn is made around the spar. Both ends are taken, given another full turn on the spar, and brought through the bight under the turn on the right, back down over one turn, and under the two turns on the left-hand side.

FIG. 103: The *Interlocking Bight Lark's Hitch* is begun by taking a bight over the top and around the back of the spar. The two ends are then put through the bight and passed inside the Hitch, so that they will interlock as shown in the illustration.

FIG. 104: The *Backed Lark's Hitch* is tied as follows: first, an ordinary Lark's Head is made; then the end on the right-hand side is taken, and a Half Hitch made with it in the reverse direction, to form an opposite Lark's Head.

FIG. 105: The *Crossed Lark's Hitch*,

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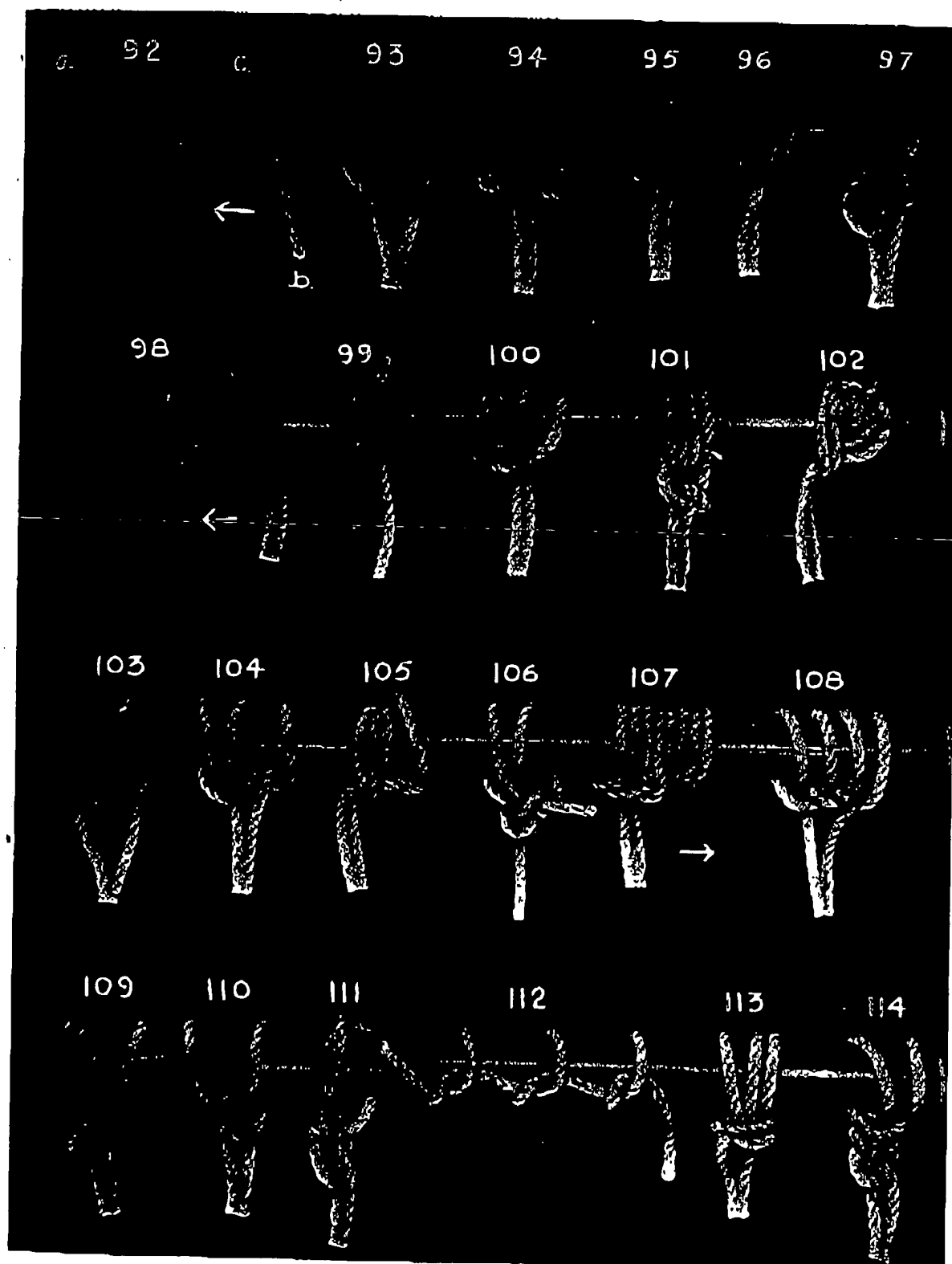


PLATE 4—HITCHES

Second Method, is made by first putting a bight on the front of the spar hanging down. The ends are next brought around, and up, and under the bight from left to right, then continued around, brought through the bight from right to left under the turn, and the knot drawn tight.

FIG. 106: The *Loop Hitch* is clearly shown in the illustration. It has no practical value.

FIG. 107: The *Killick Lifting Hitch* begins with a bight, taken and passed around the back three full turns. Then the ends are passed through the bight, and a Half Hitch is put on with the turn reversed as in the Killick Hitch, PLATE 3, FIG. 78. This Hitch, when put on an object, will hold it more securely than the ordinary Killick Hitch. If put on a log for towing, this Half Hitch is slipped up about two or three feet, or as far as necessary away from the round turns in order to keep the log pointed in the proper direction. Tension is applied to this knot in the direction indicated by the arrow.

FIG. 108: This *Series of Half Hitches* is merely a group of Half Hitches made on the spar. The end is seized to the standing part. This Hitch can be made when it is necessary to have a Hitch that will not slip either to the left or right when used on a horizontal spar or other object.

FIG. 109: The *Rolling Hitch with Reverse Hitches* is made as follows: three full turns are taken around the spar; next, an Outside Half Hitch is taken with the end, and brought up and in back of the standing part, then placed as shown in the illustration.

FIG. 110: The *Round Turn Lock Hitch* begins with two complete turns taken on the spar. The end is placed through the

center turn from the front to the back, brought back to the front again, taken around the standing part, and again hitched through the center turn—although in the opposite direction from which it was previously put through. Then the end is taken down and seized to the standing part.

FIG. 111: The *Twist Hitch with Two Half Hitches* is made by first bringing the end once around the spar. It is next twisted around the standing part twice, and brought around again. A Half Hitch is then taken with the end to the standing part. When this has been made, the remaining end is hitched as shown in the illustration.

FIG. 112: The *Marline or Hammock Hitch* consists of a number of Overhand or Thumb Knots (as many as necessary), made consecutively around an object, such as a yard, boom, stanchion. It has many uses, such as "marling down" the nettles or foxes when pointing a rope. Sails, bundles, or packages may be kept in a neat roll by marling them down with light rope. The Marline is also a very useful Hitch to apply when setting up wind dodgers to the jackstays.

FIG. 113: The *Round Turn with Lark's Head Hitch* is tied as follows: three full turns are taken on the spar to the left; the end is taken from left to right under all the turns; a bight is placed in front of the knot, and the end is led back under the turns to the left, then put through the bight to complete the knot.

FIG. 114: The *Crabber's Eye Lark's Head Hitch* is made by first tying a Lark's Head Knot on the spar. Then a Crabber's Eye Knot (PLATE 26, FIG. 64) is formed on the standing part with the end or moving part.

Plate 5—Bends

FIG. 115: The *Loop or Bight Bend* is shown, with the rope seized just below the eye of each bight.

FIG. 116: The *Jam Bend* is of no practical value. It is tied by forming two Interlocking Round Turns.

is formed as follows: first, make a Running Eye Knot or Slip Noose as in PLATE 26, FIG. 66. Then the moving end is brought up and down through the eye.

FIG. 212: The *Inverted Sailor's Breastplate with Interlocking Ends* is made by

first tying the Sailor's Breastplate Knot shown in PLATE 21, FIG. 10a. A little slack is next taken in the loop at the top of the knot, and it is then turned over. The loop is then twisted as shown in the illustration, and the ends interlocked as indicated.

Plate 38—Simple Knotting

FIG. 213: The *Halter or Manger Tie* is the most common method used for tying horses to the mangers in their stalls.

FIG. 214: The *Hackamore Tie* can also be used for the same purpose as FIG. 213.

FIG. 215: The *Mooring Tie, First Method*, is a knot for mooring boats.

FIG. 216: The *Halter Tie, Second Method*, is another method of tying a halter.

FIG. 217: The *Halter Tie, Third Method*, is a particularly easy and convenient method.

FIG. 218: The *Weaver's Knot Hitch* is a Hitch in the form of a Weaver's Knot.

FIG. 219: The *Buntline Tie* is a varied method of the regular Buntline Hitch.

FIG. 220: The *Single Four-in-Hand Tie* is a common knot used for tying neckties.

FIG. 221: The *Double Four-in-Hand Tie* is another tie that all men should know,

since, like the preceding knot, it has wide everyday use.

FIG. 222: The *Buntline Hitch* and *Oblique Granny Tie* consists of a Buntline Hitch and an Oblique Granny joined together.

FIG. 223: The *Grass or Strap Knot* is a good method to use for tying strops or straw together.

FIG. 224: The *Half Carrick Hitch* is a Hitch in the style of the Carrick Bend design.

FIG. 225: The *Mooring Tie, Second Method*, is another knot for mooring a boat. It is rather difficult to tie, but very secure.

FIG. 226: The *Packer's Noose* is a sort of Figure-of-Eight tied in the form of a noose. Similar to PLATE 50, FIG. 372.

FIG. 227: The *Variated Midshipman's Hitch* is slightly different from the ordinary form of this knot.

Plate 39—Simple Knotting

FIG. 228: The *Double Fisherman's* or *Waterman's Knot* is similar to the regular Fisherman's Knot, but is a trifle safer because it is doubled.

FIG. 229: The *Double Running Noose* is a double noose in the form of an eye.

FIG. 230: The *Twin Eye Sheet Bend* represents a double turn tied in the form of a Sheet Bend in order to make the eyes.

FIG. 231: The *Secured Eye Loop* is a simple way to secure an eye inside a loop.

FIG. 232: The *Sliding Blood Knot Noose*

is made the same as the ordinary Blood Knot, except that it is tied in the form of a noose.

FIG. 233: The *Cross Turn Bend* is an unusual method of making a Bend with a cross turn in the middle.

FIG. 234: The *Surgeon's Bow* is the same as the ordinary Surgeon's Knot, but tied in the form of a bow.

FIG. 235: The *Hitched Figure-of-Eight Eye* is made by passing a Hitch through a Figure-of-Eight eye.

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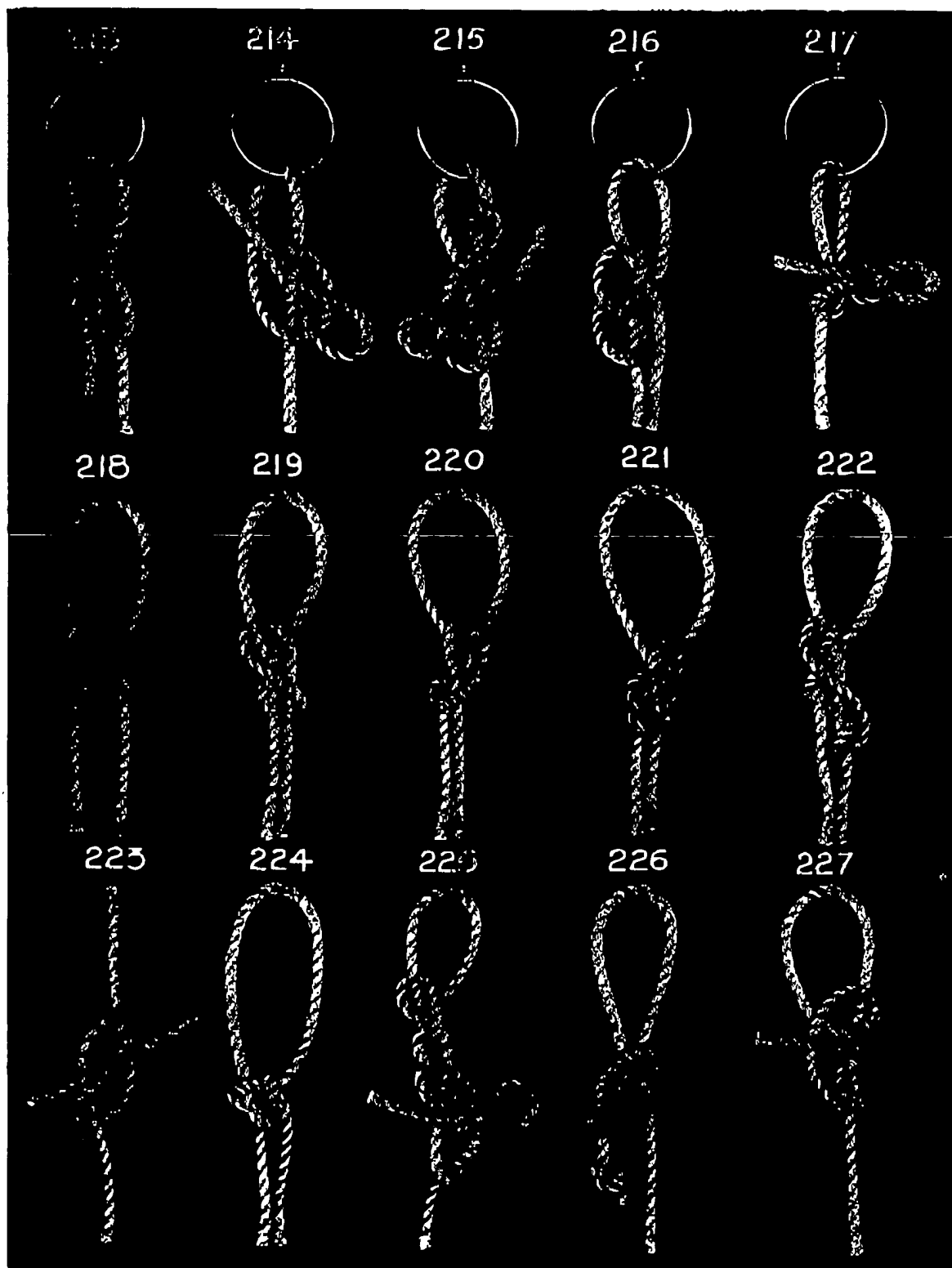


PLATE 38—SIMPLE KNOTTING

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PLATE 39—SIMPLE KNOTTING

[Plates 40-41]

Simple Knotting

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FIG. 236: The *Old-Fashioned* or *Double Bow* is the old-fashioned method of making a bow tie. It is tied with the bight of both ends.

FIG. 237: The *Sliding Monkey Fist in Loop* is another type of Monkey Fist, similar to the Blood Knot.

FIG. 238: The *Twisted Knot in Eye* is a method of tying a twisted knot in an eye loop.

FIG. 239: The *Half Double Figure-of-Eight Hitch* is a Figure-of-Eight in the form of a Hitch, half doubled.

FIG. 240: The *Round Turn Lark's Head Hitch* is somewhat like the ordinary Lark's Head, except that it is formed with a Running Eye and Half Hitch.

FIG. 241: The *Chained Overhands* consists of Overhand Knots tied in the form of an interlacing chain.

Plate 40—Simple Knotting

FIG. 242: The *Navy Neckerchief Tie* is used in the Navy to tie neckerchiefs. It consists of a Clove Hitch on the standing part.

FIG. 243: The *Single Bow Loop* is a loop and spliced eye joined together to form a single bow.

FIG. 244: The *Double Shoestring Bow* is the same as the ordinary Shoestring Bow, except that two turns are taken around the bow instead of one.

FIG. 245: The *Miller's Knot and Half Carrick* is a sort of combination Half Carrick and Miller's Knot.

FIG. 246: The *Interlocking Blood Knots* design consists of two ordinary Blood Knots tied through the body of each other.

FIG. 247: The *Halter Loop with Hondo* is a Hondo Knot in a Halter Loop.

FIG. 248: The *Double Halter Noose* is used as a halter for a cow. Part *a* is placed around the neck, and Part *b* is placed over the cow's muzzle.

FIG. 249: The *Hitched Bow* is made by tying two Hitches in the middle of a bow.

FIG. 250: The *Eye Toggle* is used for joining two eyes that may have to be cast loose instantly in an emergency.

FIG. 251: The *Twin Overhand Bights* has an Overhand Knot tied around each bight as shown.

FIG. 252: The *Square Knot Ring* is a Square Knot tied in a double ring.

FIG. 253: The *Inside Clove Hitch Loop* is an Inside Clove Hitch tied on the standing part to form a loop.

Plate 41—Simple Knotting

FIG. 254: The *Double Sheet Bend in Blood Knot Eye* is a Double Sheet Bend tied in an eye formed from a two-fold Blood Knot.

FIG. 255: The *Cape Horn Hitch* is an old-type Hitch, now seldom seen.

FIG. 256: The *Single Sheet Bend in Figure-of-Eight Eye* is a Single Sheet Bend tied in a sort of Figure-of-Eight Eye.

FIG. 257: The *Slip Hitch in Overhand Eye* is formed by first making an Overhand Eye with one strand, and then placing a

Slip Hitch underneath with the other strand.

FIG. 258: The *Jar Knot* is an unusual knot that has no practical use. It is tied by interlacing two open Overhand Knots.

FIG. 259: The *Inverted Hackamore* is tied by first making the usual Hackamore, then inverting or passing the strands back through the inside body of the knot and pulling taut.

FIG. 260: Another *Slip Hitch in Over-*